

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Number: 10/799,335 Confirmation Number: 6213

Applicant: Tomasini et al.

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Art Unit: 1722

Examiner: G. Nagesh Rao

Customer Number: 20,995

Commissioner for Patents
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REPLY BRIEF

Sir:

Filed herewith is a Reply Brief for consideration in U.S. Patent Application 10/799,335, entitled "Method to Planarize and Reduce Defect Density of Silicon Germanium". This Reply Brief is being filed in response to the Examiner's Answer sent on 27 July 2007.

STATUS OF THE CLAIMS

Claims 1–19 and 21–53 remain pending in this application. All of the pending claims were finally rejected by the Examiner, and are the subject of this appeal.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection presented for review are as follows:

(a) Independent Claims 1, 19, 39 and 44 stand rejected as being anticipated by the teachings of U.S. Patent Application Publication 2003/0157787 ("Murthy");

(b) Dependent Claims 2-4, 6, 9-15, 21-28, 31, 32, 34, 40-43, 45 and 51-53 stand rejected as being anticipated by the teachings of Murthy;

(c) Dependent Claim 5 stands rejected as being unpatentable over Murthy in view of Mayer et al., "Electronic Material Science: For Integrated Circuits in Si and GaAs" at page 40 ("Mayer");

(d) Dependent Claims 7, 8, 16-18, 29, 30, 33, 35-38 and 46-50 stand rejected as being unpatentable over Murthy in view of what the Examiner considers to be Appellants' admitted statements of prior art.

ARGUMENT

Appellants incorporate by reference prior arguments in the Appeal that the rejections unfairly combine separate teachings in the prior art for selective deposition (using an etchant) and blanket deposition (that do not use an etchant) to arrive at Appellants' claimed process for blanket layer deposition using an etchant. Moreover, the Examiner makes the majority of these rejections for anticipation, without even attempting to analyze under the proper obviousness standards.

Instead of repeating those arguments here, Appellants focus in the present Reply Brief on new issues raised by the Examiner's Answer.

New Issues Raised by Examiner's Answer.

In the Examiner's Answer sent on 27 July 2007, the following related arguments are presented for the first time:

"Just because Murthy 787 in one instance teaches selective deposition does not preclude it from being a form of blanket deposition" [Examiner's Answer at p. 8]

"Selective deposition as denoted before constitutes as a form of blanket deposition, there is nothing precluding it from being one, especially as denoted by applicant's claim language." [Examiner's Answer at pp. 9-10]

Thus the Examiner now appears to be taking the position that because selective deposition is "a form of blanket deposition", the Murthy teaching of selective deposition embodiments can be used to support an anticipation rejection of Appellants' claims reciting blanket deposition.

Interpreting "Blanket" Deposition to Encompass "Selective" Deposition is Unreasonable.

Claim language must be given its plain meaning unless the plain meaning is inconsistent with the specification. *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989). The plain meaning is "the meaning that the term would have to a

person of ordinary skill in the art in question at the time of the invention". *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313, 75 USPQ2d 1321, 1326 (Fed. Cir. 2005) (*en banc*).

In this case, Appellants provided the following clear statement in the originally-filed application disclosure as to the meaning of the terms "blanket" and "selective" deposition of films:

In a selective deposition, the film is deposited over certain areas of a substrate, whereas in a blanket deposition, the film is deposited over substantially the entire substrate. [Application at paragraph **[0004]**, page 2]

Thus the specification clearly distinguishes selective deposition or layers from blanket deposition or layers, such that it is unreasonable to interpret "blanket" to encompass "selective" deposition or films. Furthermore, this usage is consistent with the usage of those terms in the art. For example, this usage is completely consistent with how Murthy uses the term "selective deposition":

FIG. 3 illustrates another exemplary method 300 to selectively form a graded SiGe—Ge film over a certain regions on a substrate such as a semiconductor wafer. In one example, a mask ... is deposited on the semiconductor wafer. The graded SiGe—Ge film is formed only over the exposed area of the wafer, the area not covered by the mask. [Murthy at paragraph **[0027]**; emphasis added]

It is only this "selective" deposition for which Murthy suggests employing an etchant, contrary to Appellants' claims for blanket deposition employing an etchant. The only reference to deposition that does not include using an etchant conspicuously fails to describe a "selective" process. See Murthy at paragraphs **[0024]** through **[0026]** and Figure 2. Thus, the only arguably blanket process in Murthy fails to employ an etchant, and all the processes that use an etchant are explicitly described as selective.


Conclusion.

Based on the foregoing, Appellants respectfully submit that the Examiner's assertion that selective deposition "constitutes as a form of blanket deposition" is legally unsupportable. It is not only contrary to the ordinary meaning as would have been understood by an ordinarily skilled artisan at the time Appellants' application was filed, but it is also contrary to how these terms are (a) explicitly defined by Appellants in the originally-filed application disclosure, and (b) used by Murthy.

Respectfully submitted,

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